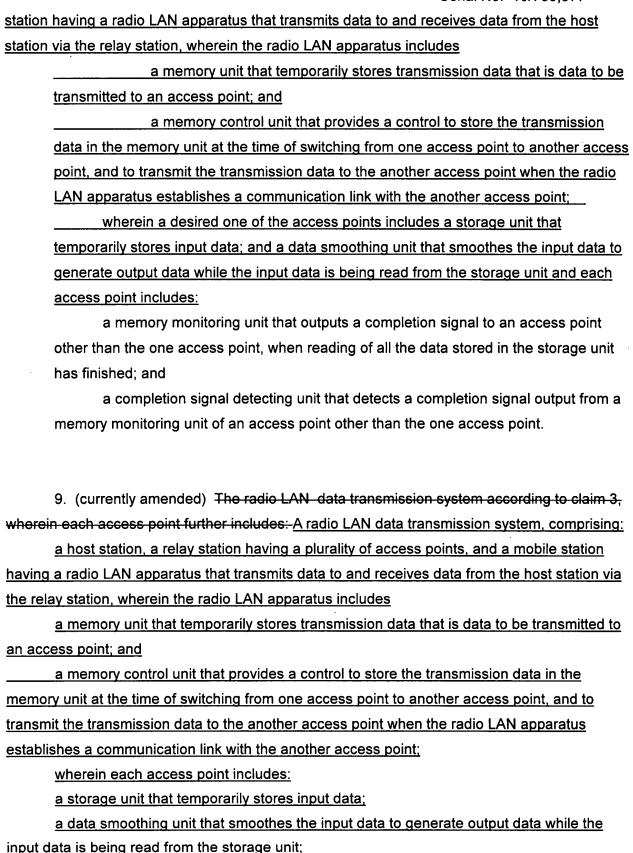IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with <u>underlining</u> and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 4, 5, 8, 9, 10, 11, 12, 13, 16, and 17 and CANCEL claims 1, 2, 3, 14, 15, and 18 in accordance with the following:

1. (cancelled)

2. (cancelled)

3. (cancelled)

4. (currently amended)   The radio LAN data transmission system according to claim ~~2~~<u>8</u>, wherein the data smoothing unit outputs the output data at a transmission speed that is different from a transmission speed at which the input data is read.

5. (currently amended)   The radio LAN data transmission system according to claim ~~3~~<u>9</u>, wherein the data smoothing unit outputs the output data at a transmission speed that is different from a transmission speed at which the input data is read.

6. (original)   The radio LAN data transmission system according to claim 4, wherein the data smoothing unit outputs the output data at a transmission speed that is lower than a transmission speed at which the input data is read.

7. (original)   The radio LAN data transmission system according to claim 5, wherein the data smoothing unit outputs the output data at a transmission speed that is lower than a transmission speed at which the input data is read.

8. (currently amended) ~~The~~ <u>A</u> radio LAN data transmission system ~~according to claim 2,~~ ~~wherein each access point further includes~~ <u>comprising</u>:
    <u>a host station, a relay station having a plurality of access points, and a mobile</u>

station having a radio LAN apparatus that transmits data to and receives data from the host station via the relay station, wherein the radio LAN apparatus includes

a memory unit that temporarily stores transmission data that is data to be transmitted to an access point; and

a memory control unit that provides a control to store the transmission data in the memory unit at the time of switching from one access point to another access point, and to transmit the transmission data to the another access point when the radio LAN apparatus establishes a communication link with the another access point;

wherein a desired one of the access points includes a storage unit that temporarily stores input data; and a data smoothing unit that smoothes the input data to generate output data while the input data is being read from the storage unit and each access point includes:

a memory monitoring unit that outputs a completion signal to an access point other than the one access point, when reading of all the data stored in the storage unit has finished; and

a completion signal detecting unit that detects a completion signal output from a memory monitoring unit of an access point other than the one access point.

9. (currently amended) ~~The radio LAN data transmission system according to claim 3, wherein each access point further includes:~~ A radio LAN data transmission system, comprising:

a host station, a relay station having a plurality of access points, and a mobile station having a radio LAN apparatus that transmits data to and receives data from the host station via the relay station, wherein the radio LAN apparatus includes

a memory unit that temporarily stores transmission data that is data to be transmitted to an access point; and

a memory control unit that provides a control to store the transmission data in the memory unit at the time of switching from one access point to another access point, and to transmit the transmission data to the another access point when the radio LAN apparatus establishes a communication link with the another access point;

wherein each access point includes:

a storage unit that temporarily stores input data;

a data smoothing unit that smoothes the input data to generate output data while the input data is being read from the storage unit;

a memory monitoring unit that outputs a completion signal to an access point other than the one access point, when reading of all the data stored in the storage unit has finished; and

a completion signal detecting unit that detects a completion signal output from a memory monitoring unit of an access point other than the one access point.

10. (currently amended)   The radio LAN data transmission system according to claim 2̶8̲, wherein a desired one of the access point includes:

a packet number detecting unit that detects a first packet number that is a packet number of data transmitted from an access point other than the one access point and a second packet number that is a packet number of data transmitted from the radio LAN apparatus;

a packet number comparing unit that compares the first packet number and the second packet number, and generates a packet number result; and

a transmission data control unit that controls a sequence of transmitting the transmission data, based on the packet number result.

11. (currently amended)   The radio LAN data transmission system according to claim 3̶9̲, wherein a desired one of the access point includes:

a packet number detecting unit that detects a first packet number that is a packet number of data transmitted from an access point other than the one access point and a second packet number that is a packet number of data transmitted from the radio LAN apparatus;

a packet number comparing unit that compares the first packet number and the second packet number, and generates a packet number result; and

a transmission data control unit that controls a sequence of transmitting the transmission data, based on the packet number result.

12. (currently amended)   The radio LAN data transmission system according to claim 2̶8̲, wherein a desired one of the access point includes:

a time stamp detecting unit that detects a first time stamp that is a time stamp of data transmitted from an access point other than the predetermined access point and a second time stamp that is a time stamp of data transmitted from the radio LAN apparatus;

a time stamp comparing unit that compares the first stamp and the second time stamp, and generates a time stamp result; and

a transmission data control unit that controls a sequence of transmitting the

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transmission data, based on the time stamp result.

13. (currently amended)   The radio LAN data transmission system according to claim 3~~9~~, wherein a desired one of the access point includes:

a time stamp detecting unit that detects a first time stamp that is a time stamp of data transmitted from an access point other than the predetermined access point and a second time stamp that is a time stamp of data transmitted from the radio LAN apparatus;

a time stamp comparing unit that compares the first stamp and the second time stamp, and generates a time stamp result; and

a transmission data control unit that controls a sequence of transmitting the transmission data, based on the time stamp result.

14. (cancelled)

15. (cancelled)

16. (currently amended)   A radio LAN data transmission method of transmitting data between a mobile station having a radio LAN apparatus and a host station, via a relay station having a plurality of access points, comprising:

temporarily storing transmission data in the radio LAN apparatus;

detecting whether a link between the radio LAN apparatus and any one of the access points is established;

reading the transmission data stored when it is detected at the detecting that a link between the radio LAN apparatus and any one of the access points has been established~~The radio LAN data transmission method according to claim 15, further comprising~~:

temporarily storing data acquired by the access point in the access point; and

reading the data stored and then smoothing the data;

detecting an amount of data left unread in the access point;

generating a reading completion signal when it is detected at the detecting that the amount is zero; and

starting the transmission of the data, from the access point that receives the reading completion signal.

17. (currently amended)   A computer-readable storage including a program for controlling a computer that to executes data transmission between a mobile station having a radio LAN apparatus and a host station, via a relay station having a plurality of access points, the program making a computer execute:

temporarily storing transmission data in the radio LAN apparatus;

detecting whether a link between the radio LAN apparatus and any one of the access points is established;

reading the transmission data stored when it is detected at the detecting that a link between the radio LAN apparatus and any one of the access points has been established

temporarily storing data acquired by the access point in the access point; and

reading the data stored and then smoothing the data;

detecting an amount of data left unread in the access point;

generating a reading completion signal when it is detected at the detecting that the amount is zero; and

starting the transmission of the data, from the access point that receives the reading completion signal.

18. (cancelled)